

- 1 1. A method comprising:
2 providing error data to indicate motion in an image;
3 determining a characteristic of the error data; and
4 based on said characteristic, determining whether to use said error data to
5 indicate motion in an image.
- 1 2. The method of claim 1 including representing error data as a collection of
2 ordered bits, and coding the bits of each order to indicate zerotree roots that are
3 associated with the order.
- 1 3. The method of claim 1 wherein providing error data includes taking the
2 difference between two successive image representations in an image sequence.
- 1 4. The method of claim 3 wherein taking the difference includes taking the
2 difference of two successive discrete wavelet transform coded frames.
- 1 5. The method of claim 1 wherein determining a characteristic includes
2 determining whether or not the error data exceed a predetermined threshold value.
- 1 6. The method of claim 5 including, if the magnitude of the error data is
2 below the value, using a motion vector to indicate motion in the image.
- 1 7. The method of claim 5 wherein if the magnitude of the error data exceeds
2 the value, using a motion vector and the error data to indicate motion in an image.
- 1 8. The method of claim 5 including zerotree encoding said error data.

1 9. The method of claim 8 including zerotree encoding a representation of the
2 intensity values of pixels making up an image.

1 10. An article comprising a storage medium readable by a processor-based
2 system, the storage medium storing instructions to enable a processor to:
3 provide error data to indicate motion in an image;
4 determine a characteristic of the error data; and
5 based on said characteristic, determine whether to use said error data to
6 indicate motion in an image.

1 11. The article of claim 10, the storage medium comprising instructions to
2 enable the processor to:
3 represent error data as a collection of ordered bits and code the bits of each
4 order to indicate zerotree roots that are associated with the order.

1 12. The article of claim 10, the storage medium comprising instructions to
2 enable the processor to take the difference between two successive image representations
3 in an image sequence to develop the error data.

1 13. The article of claim 12, the storage medium comprising instructions to
2 enable the processor to take the difference of two successive discrete wavelet transform
3 coded frames.

1 14. The article of claim 10, the storage medium comprising instructions to
2 enable the processor to determine whether or not the error data exceed a predetermined
3 threshold value.

1 15. The article of claim 14, the storage medium comprising instructions to
2 enable the processor to, if the magnitude of the error data is below the value, use a
3 motion vector to indicate motion in the image.

1 16. The article of claim 14, the storage medium comprising instructions to
2 enable the processor to, if the magnitude of the error data exceeds the value, use a motion
3 vector and the error data to indicate motion in the image.

1 17. The article of claim 14, the storage medium comprising instructions to
2 enable the processor to zerotree encode said error data.

1 18. The article of claim 17, the storage medium comprising instructions to
2 enable the processor to zerotree encode a representation of the intensity values of pixels
3 making up an image.

1 19. A system comprising:
2 a subtracter to provide error data to indicate motion in an image; and
3 a device to determine a characteristic of the error data and, based on the
4 characteristic, determine whether to use the error data to indicate motion in an image.

1 20. The system of claim 19 wherein said device represents error data as a
2 collection of ordered bits, and codes the bits of each order to indicate zerotree roots that
3 are associated with the order.

1 21. The system of claim 19 wherein the subtracter takes the difference
2 between two successive image representations in an image sequence to develop error
3 data.

1 22. The system of claim 21, wherein the subtracter takes the difference of two
2 successive discrete wavelet transform coded frames.

1 23. The system of claim 19 wherein the device determines whether or not the
2 error data exceeds a predetermined threshold value.

1 24. The system of claim 23 wherein the device uses a motion vector only to
2 indicate motion in the image if the magnitude of the error is below the value.

1 25. The system of claim 23 wherein the device uses a motion vector and error
2 data to indicate motion in the image if the magnitude of the error exceeds the value.

1 26. The system of claim 23 wherein said device zerotree encodes said error
2 data.

1 27. The system of claim 26 wherein the device zerotree encodes a
2 representation of intensity values of pixels making up an image.

1 28. The system of claim 19 including arithmetic coder to code said error data.

1 29. The system of claim 19 wherein said device zerotree encodes said error
2 data and inverts the zerotree encoding of said error data.

1 30. The system of claim 19 wherein said device uses multi-resolution motion
2 estimation.